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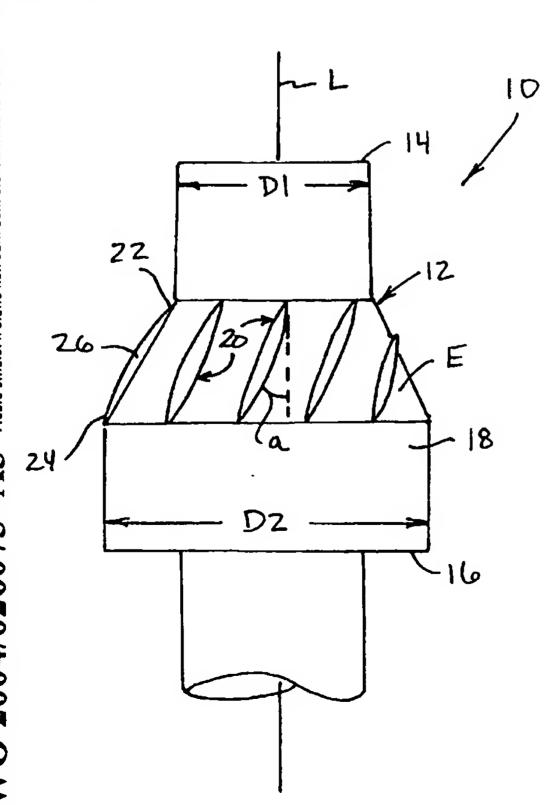
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(54) Title: ROTATING MANDREL FOR EXPANDABLE TUBULAR CASING



(57) Abstract: An expansion mandrel (10) for expanding tubular casing includes a tapered expansion portion having expansion segments (20) which are angularly disposed on an external surface of the mandrel (10). The segments (20) reduce friction and cause the mandrel (10) to rotate in response to the mandrel (10) being moved through the casing during expansion of the casing.

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PCT/US03/25715

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According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 166/207,384,206,380			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap		Relevant to claim No.
х	US 6,325,148 A (Trahan et al.) 4 December 2001 (10-35.	04.12.2001), Fig. 9 and col. 6, lines	1-3,4,9,13-15,17,20
X,P 	US 6,457,532 A (Simpson) 1 October 2002 (01.10.2002), Figs. 20, 22 24, and col. 12, line 27- col. 14, line 9.		1-7,13-17,19
Y,P			8,10-12,18,21-22
x	US 1,597,212 A (Spengler) 24 August 1926, (24.08.1926), Entire document, particularly Figure 1.		1-5,13-16
Y			8,18
Y,P	US Patent Application Publication 2003/0075338 (Sivley), 24 April 2003 (24.04.2003),		10-12,21,22
x	Fig. 10 and paragraph 0118 on pages 9-10. US 3,039,530 A (Condra) 19 June 1962 (19.06.1962), Fig. 1, col. 1, lines 7-12.		1-3,6,9
Purther documents are listed in the continuation of Box C. See patent family annex.			
		later document published after the int priority date and not in conflict with	the application but cited to
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